

CLAIMS

What is claimed is:

- 5 1. A method of processing a selection made from a menu on a telephone having a display monitor and a plurality of modes, the method comprising:
detecting that a menu selection from a menu on the telephone is selected;
creating a message based on the menu selection;
passing the message to a menu processing object;
10 upon receiving the message, the menu processing object creating an event based on the menu selection;
the menu processing object determining which mode from the plurality of modes is presently active in the phone; and
displaying an appropriate menu label set and a plane display on the
15 display monitor.
2. A method as recited in claim 1 wherein a line processing object detects that the menu selection was selected.
- 20 3. A method as recited in claim 1 wherein the menu processing object resides on the telephone.
4. A method as recited in claim 1 further comprising retrieving a menu label set based on the menu selection.
- 25 5. A method as recited in claim 4 further comprising displaying the menu label set on the display monitor.
6. A method as recited in claim 1 wherein the menu processing object
30 creates the event.
7. A method as recited in claim 1 further comprising detecting that a line selection from a line list on the telephone is selected.

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8. A method as recited in claim 1 wherein the event is processed by a call manager object.
9. A method as recited in claim 8 wherein the call manager object resides
5 outside the telephone.
10. A method as recited in claim 8 further comprising sending a stimulus message to the line processing object from the call manager object.
- 10 11. A method as recited in claim 1 further comprising overlaying a first plane based on a mode from the plurality of modes by an information plane based on an information mode.
12. A method as recited in claim 11 wherein the plurality of modes
15 includes a settings mode, a directories mode, a services mode, and a messages mode.
13. A method of displaying a soft key label set on a telephone having a display monitor, the method comprising:
20 storing a plurality of soft key label sets wherein a soft key label set has an application in a particular context and includes a plurality of text strings;
retrieving a soft key label set based on the particular context; and
displaying the soft key label set on the display such that each text
25 string from the plurality of text strings corresponds to a physical button on the telephone.
14. A method as recited in claim 13 wherein the index is invoked by one of a line handler object and a call plane object.
- 30 15. A method as recited in claim 13 wherein the valid mask is invoked by one of a line handler object and a call plane object.
16. A method as recited in claim 13 wherein a subset of the plurality of soft key labels is stored remotely.

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17. A method as recited in claim 13 further comprising using an index to retrieve a soft key label set wherein a value for the index is determined based on the particular context.
- 5 18. A method as recited in claim 17 further comprising invalidating one or more text strings in a soft key label set using a valid mask associated with the index.
- 10 19. A method as recited in claim 13 further comprising determining the particular context the telephone is in at any given time during its operation.
20. A method as recited in claim 19 further comprising examining a database associated with the telephone to determine the particular context of the telephone.
- 15 21. A data structure for use in processing input through an interactive user interface for a telephone, the data structure comprising:
a first segment for displaying header information;
a second segment for displaying status information;
20 a third segment for displaying labels for a soft key set; and
a fourth segment for displaying information relating to a plurality of telephone lines.
- 25 22. A data structure as recited in claim 21 wherein the fourth segment displays information relating to one of messages, directories, settings, and services.
- 30 23. A data structure as recited in claim 21 wherein the fourth segment further comprises:
a help information segment;
an active mode segment for displaying data relevant to one of a plurality of modes;
a line detail segment; and
35 an overview segment for displaying an overview of all calls on the telephone.

24. A data structure as recited in claim 21 wherein the plurality of modes includes a settings mode, a directories mode, and a messages mode.

25. A computer-readable medium containing programmed instructions
5 arranged to display a soft key label set on a telephone having a display
monitor, the computer-readable medium including programmed instructions
for:

storing a plurality of soft key label sets wherein a soft key label set has an application in a particular context and includes a plurality of text strings; retrieving a soft key label set based on the particular context; and displaying the soft key label set on the display such that each text string from the plurality of text strings corresponds to a physical button on the telephone.

15 26. A computer-readable medium containing programmed instructions arranged to process a selection made from a menu on a telephone having a display monitor and a plurality of modes, the computer-readable medium including programmed instructions for:

detecting that a menu selection from a menu on the telephone is
selected;
creating a message based on the menu selection;
passing the message to a menu processing object;
upon receiving the message, the menu processing object creating an
event based on the menu selection;
the menu processing object determining which mode from the plurality
of modes is presently active in the phone; and
displaying an appropriate menu label set and a plane display on the
display monitor.

27. A computer-readable medium containing a data structure for use in processing input through an interactive user interface for a telephone, said data structure comprising:

- a first segment for displaying header information;
- a second segment for displaying status information;
- a third segment for displaying labels for a soft key set; and

a fourth segment for displaying information relating to a plurality of telephone lines.

28. A computer-readable medium containing a data structure as recited in
5 claim 27 wherein the fourth segment further comprises:
a help information segment;
an active mode segment for displaying data relevant to one of a
plurality of modes;
a line detail segment; and
10 an overview segment for displaying an overview of all calls on the
telephone.

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